

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1-2, 10-13, 17, 19, and 21-22 in accordance with the following:

1. (currently amended) A code execution apparatus using a multiprocessor system, comprising:

a secure memory storing an encrypted code of a secure task and verifying information for verification of validity of the encrypted code, said encrypted code being generated by assigning an electronic signature in units of a page, the secure memory including a verification unit to verify the validity of the encrypted code according to the verifying information;

a secure processor executing the encrypted code when the validity of the encrypted code is verified according to the verifying information;

a normal memory storing a code of an unsecured task;

a normal processor executing the code of the unsecured task; and

a controller discriminating between the secure task and the unsecured task, and storing the encrypted code in the secure memory and the code of the normal task in the normal memory responsive to the discrimination.

2. (currently amended) The apparatus according to claim 1, wherein said secure memory stores the encrypted code in units of physical memory allocation, stores the verifying information for the encrypted code in the units, ~~and~~ and the verification unit verifies the encrypted code in the units according to the verifying information, and the secure processor fetches, decrypts, and executes an encrypted instruction included in an encrypted code whose validity has been verified.

3. (original) The apparatus according to claim 1, wherein said secure processor holds a plurality of decryption keys, and decrypts the encrypted instruction using a specified decryption key in the plurality of decryption keys.

4. (original) The apparatus according to claim 2, wherein said secure memory and said secure processor share a session key after mutual

authentication, said secure memory further encrypts the encrypted instruction using the session key, and transfers the encrypted instruction to the secure processor.

5. (original) The apparatus according to claim 1, further comprising
a secure drive further encrypting the encrypted code using a unique key, and storing the encrypted code, wherein

said secure drive and said secure memory share a session key after mutual authentication, said secure drive decrypts the encrypted code using the unique key at a read instruction from said controller, encrypts the code using the session key, and transfers the code to said secure memory.

6. (original) The apparatus according to claim 1, wherein
at least parts of said secure memory and said normal memory overlap each other.

7. (original) The apparatus according to claim 1, wherein
said secure processor fixes at least a part of a logical circuit for executing an encrypted code in a circuit state in a non-volatile manner using the encrypted code.

8. (original) The apparatus according to claim 7, wherein
said secure processor erases a previous circuit state of the logical circuit, and newly overwrites the state.

9. (previously presented) A memory, comprising:
a device storing an encrypted code in units of physical memory allocation, said encrypted code being generated by assigning an electronic signature in units of a page;
a device storing a plurality of pieces of verifying information for verification of validity of respective units of the encrypted code; and
a device verifying the respective units of the encrypted code according to the plurality of pieces of verifying information.

10. (currently amended) A processor, comprising:
a device receiving a notification that an encrypted code is valid, from a memory storing the encrypted code and verifying information for verification of validity of the encrypted code, the memory including a verification unit to verify validity of the encrypted code according to the verifying information, said encrypted code being generated by assigning an electronic signature

in units of a page;

- a device fetching and decrypting an encrypted instruction contained in the encrypted code when the notification is received; and
- a device executing a decrypted instruction.

11. (currently amended) A computer-readable storage medium recording a program for a computer, said program enabling the computer to perform:

- allocating a secure task and an unsecured task in a multiprocessor system having a secure processor for performing the secure task and a normal processor for performing the unsecured task;
- discriminating between the secure task and the unsecured task, storing the encrypted code of the secure task and verifying information for verification of validity of the encrypted code in a secure memory that includes a verification unit to verify validity of the encrypted code according to the verifying information, said encrypted code being generated by assigning an electronic signature in units of a page; and
- allowing the secure processor to execute the encrypted code when the validity of the encrypted code is verified according to the verifying information.

12. (currently amended) A computer-readable storage storing a program for a computer, said program enabling the computer to perform:

- allocating a secure task and an unsecured task in a multiprocessor system having a secure processor for performing the secure task and a normal processor for performing the unsecured task;
- discriminating between the secure task and the unsecured task;
- storing the normal code in a normal memory;
- storing the encrypted code of the secure task and verifying information for verification of validity of the encrypted code in a secure memory that includes a verification unit to verify validity of the encrypted code according to the verifying information, said encrypted code being generated by assigning an electronic signature in units of a page; and
- allowing the secure processor to execute the encrypted code when the validity of the encrypted code is verified according to the verifying information.

13. (currently amended) A code distributing method, comprising:

- a code generator providing an executable code for a code authentication organization, said code being generated by assigning an electronic signature in units of a page;

said code authentication organization adding to the code verifying information for verification of validity of the code, and distributing the code to a user of a multiprocessor system; and

said multiprocessor system including a secure memory for storing the code and verifying information for verification of validity of the code, a secure processor for performing a secure task using the code, and a normal processor for performing an unsecured task, the secure memory including a verification unit to verify the validity of the code according to the verifying information, the multiprocessor system discriminating between the secure task and the unsecured task, allocating the secure task and the unsecured task responsive to the discrimination, verifying the validity of the code according to the verifying information, and executing the code.

14. (original) The method according to claim 13, wherein

said code authentication organization presents a fee to the code generator and collects the code, pays the fee when the code is collected, presenting a code fee to the user, adds the verifying information, provides the code for the user, and simultaneously collects the code fee.

15. (original) The method according to claim 13, wherein

said code authentication organization divides the code into two or more divisions, first distributes a part, and then distributes rest of the code to the user at a request of the user.

16. (original) The method according to claim 15, wherein

said code authentication organization presents a fee to the code generator and collects the code, pays the fee when the code is collected, presents a code fee for the rest of the code to the user, adds verifying information, and provides the code and receives the code fee.

17. (currently amended) A code distributing method, comprising:

a code generator providing an executable code for a code authentication organization, and paying a commission, said code being generated by assigning an electronic signature in units of a page;

said code authentication organization adding to the code verifying information for verification of validity of the code;

said code generator distributing the code to a user of a multiprocessor system, and receiving a fee paid by the user; and

said multiprocessor system ~~containing~~including a secure memory for storing the code

and verifying information for verification of validity of the code, a secure processor for performing a secure task using the code, and a normal processor for performing an unsecured task, the secure memory including a verification unit to verify the validity of the code according to the verifying information, the multiprocessor system discriminating the secure task and the unsecured task, allocating the secure task and the unsecured task responsive to the discrimination, verifying the validity of the code according to the verifying information, and executing the code.

18. (original) The method according to claim 17, wherein
said code generator divides the code into two or more divisions, first distributes a part, then presents a fee for rest of the code at a request of the user, provides the code, and receives the fee.

19. (currently amended) A code execution apparatus using a multiprocessor system, comprising:

secure memory means for storing an encrypted code of a secure task and verifying information for verification of validity of the encrypted code, said encrypted code being generated by assigning an electronic signature in units of a page, the secure memory means including a verification unit to verify the validity of the encrypted code according to the verifying information;

secure processor means for executing the encrypted code when the validity of the encrypted code is verified according to the verifying information;

normal memory means for storing a code of an unsecured task;

normal processor means for executing the code of the unsecured task;

control means for discriminating the secure task and the unsecured task, allocating the secure task and the unsecured task, and storing the encrypted code in said secure memory means and the code of the unsecured task in said normal memory means responsive to the discrimination.

20. (previously presented) A memory, comprising:
means for storing an encrypted code in units of physical memory allocation, said encrypted code being generated by assigning an electronic signature in units of a page;
means for storing a plurality of pieces of verifying information for verification of validity of respective units of the encrypted code; and
means for verifying the respective units of the encrypted code according to the plurality of

pieces of the verifying information.

21. (currently amended) A processor, comprising:

means for receiving a notification that an encrypted code is valid, from a memory storing the encrypted code and verifying information for verification of validity of the encrypted code, the memory including a verification unit to verify validity of the encrypted code according to the verifying information, said encrypted code being generated by assigning an electronic signature in units of a page;

means for fetching and decrypting an encrypted instruction contained in the encrypted code when the notification is received; and

means for executing a decrypted instruction.

22. (currently amended) A multiprocessor system executing a code execution, comprising:

a secure processor executing encrypted code of a secure task when validity of the encrypted code is verified according to verifying information, said encrypted code being generated by assigning an electronic signature in units of a page;

a normal processor executing code of an unsecured task; and

a controller discriminating between the secure task and the unsecured, and storing the encrypted code in a secure memory and the code of the unsecured task in a normal memory responsive to the discrimination, the secure memory including a verification unit to verify the validity of the encrypted code according to the verifying information.